



PRODUCT DESCRIPTION

Hyperline brings Category 6 FUTP CM performance to a new level. This cable meets requirements of ANSI/TIA-568-C.2. With guaranteed performance out to 400 MHz and independently verified and monitored by UL, when compared to TIA guidelines; meets or surpasses the specifications in every category. The overall metal foil screen with drain wire along with a construction comprised of 8 x 23-gauge solid bare copper cores, which are then insulated with high density polyethylene insulation and organized into four color coded twisted pair sets of conductors.

USAGE & ENVIRONMENTAL CONDITION

Temperature range	Storage & shipping	-20°C to 75°C
	Installation	0°C to 60°C
	Operation	-20°C to 60°C
Minimum bending radius	≥ 4 times of overall diameter	
Maximum pulling tension	≤ 110 N	

APPLICATIONS

- Structured cabling for horizontal and building backbone cable.
- Transmission of digital and analogue for data, video and audio applications.
- Overall metal shielded providing good protection from EMI noise.
- IEEE 802.3ab 1000BASE-T, 1000BASE-TX and legacy speeds.
- CDDI / ATM / Token Ring
- IEEE 802.3af (PoE) / IEEE 802.3at (PoE+)

PERFORMANCE COMPLIANCE

- ANSI/TIA-568-C.2 (2009)
- ISO/IEC 11801 (Edition 2.2)
- IEC 61156-5 (Edition 2.0)
- Flame Test: UL CM rated.
- UL 444
- CSA 22.2 NO.214
- EU Directive 2011/65/EC (RoHS2)
- EU Directive 2006/95/EC (LVD)
- CE compliance date: 2010.01.01

PHYSICAL & ELECTRICAL CHARACTERISTICS

at 20 °C	
Temperature/voltage rating	75°C / 300V
Spark test	2.5 KV DC
AC leakage current through overall jacket	≤ 10mA (1.5KV AC)
Cable cold bend	-20°C for 4 hr
Conductor DC resistance	≤ 9.38 Ω/100m
Resistance unbalance	≤ 5%
Dielectric strength	1.5 KV ac for 2 s
Insulation resistance	≥ 5000 MΩ•Km
Mutual capacitance	≤ 5.6 nF/100m
Capacitance unbalance pair-to-ground	≤ 330 pF/100m

FEATURES

- High performance rate of transmission
- High quality of safety property
- Sweep frequency up to 400 MHz
- Meets/exceeds ANSI/TIA-568-C.2 specification
- Meets ISO/IEC 11801 (Edition 2.2)
- Meets IEC 61156-5 (Edition 2.0)
- Quick Count marking system in feet
- Lower cross talk

Available in ten different jacket colors



ELECTRICAL PERFORMANCE COMPARISON (At 20 °C)

Frequency (MHz)	INSERTION LOSS		NEXT		PS.NEXT		ACR	
	TIA-568-C.2	Hyperline	TIA-568-C.2	Hyperline	TIA-568-C.2	Hyperline	TIA-568-C.2	Hyperline
	Max. dB/100m	Max. dB/100m	Max. dB/100m	Max. dB/100m	Max. dB/100m	Max. dB/100m	Max. dB/100m	Max. dB/100m
1	2.0	2.03	74.3	77.3	72.3	75.3	72.3	75.2
4	3.8	3.78	65.3	68.2	63.3	66.2	61.5	64.4
8	5.3	5.32	60.8	63.7	58.8	61.7	55.4	58.4
10	6.0	5.95	59.3	62.3	57.3	60.3	53.3	56.3
16	7.6	7.55	56.2	59.2	54.2	57.2	48.6	51.6
20	8.5	8.47	54.8	57.7	52.8	55.7	46.3	49.3
25	9.5	9.51	53.3	56.3	51.3	54.3	43.8	46.8
31.25	10.7	10.67	51.9	54.8	49.9	52.8	41.2	44.2
62.5	15.4	15.38	47.4	50.3	45.4	48.3	32.0	34.9
100	19.8	19.80	44.3	47.3	42.3	45.3	24.5	27.5
150	29.0	24.71	39.8	44.6	37.8	42.6	10.8	19.9
200	32.8	28.98	38.3	42.7	36.3	40.7	5.5	13.8
250		32.85		41.3		39.3		8.4
300		36.43		40.1		38.1		3.7
350		39.79		39.1		37.1		N.A.
400		42.97		38.2		36.2		N.A.

Frequency (MHz)	PS.ACR		ACRF		PS.ACRF		RETURN LOSS	
	TIA-568-C.2	Hyperline	TIA-568-C.2	Hyperline	TIA-568-C.2	Hyperline	TIA-568-C.2	Hyperline
	Max. dB/100m	Max. dB/100m	Max. dB/100m	Max. dB/100m	Max. dB/100m	Max. dB/100m	Max. dB/100m	Max. dB/100m
1	70.3	73.2	67.8	70.8	64.8	67.8	20.0	20.0
4	59.5	62.4	55.8	58.7	52.8	55.7	23.0	23.0
8	53.4	56.4	49.7	52.7	46.7	49.7	24.5	24.5
10	51.3	54.3	47.8	50.8	44.8	47.8	25.0	25.0
16	46.6	49.6	43.7	46.7	40.7	43.7	25.0	25.0
20	44.3	47.3	41.8	44.7	38.8	41.7	25.0	25.0
25	41.8	44.8	39.8	42.8	36.8	39.8	24.3	24.3
31.25	39.2	42.2	37.9	40.9	34.9	37.9	23.6	23.6
62.5	30.0	32.9	31.9	34.8	28.9	31.8	21.5	21.5
100	22.5	25.5	27.8	30.8	24.8	27.8	20.1	20.1
150	8.8	17.9	21.8	27.2	18.8	24.2	18.0	18.8
200	3.5	11.8	19.8	24.7	16.8	21.7	17.3	18.0
250		6.4		22.8		19.8		17.3
300		1.7		21.2		18.2		16.7
350		N.A.		19.9		16.9		16.3
400		N.A.		18.7		15.7		15.8



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MATERIALS & CONSTRUCTION

Conductor	Material	23AWG solid bare copper	
Insulation	Material	Polyolefin (PO)	
	Color code & diameter	Blue & white/blue stripe	1.08 ± 0.02 mm
		Orange & white/orange stripe	1.05 ± 0.02 mm
		Green & white/green stripe	1.08 ± 0.02 mm
	Brown & white/brown stripe	1.05 ± 0.02 mm	
Twisted	Description	Left hand direction	
Filler	Material	Polyolefin (PO)	
Assembly	Description	Left hand direction	
Jacket	Material	Flame retardant polyvinyl chloride (FRPVC)	
	Diameter	7.20 ± 0.2 mm	
	Thickness	0.45 ± 0.05 mm	
	Color	Per Hyperline standard	
Drain Wire	Material	24AWG solid tinned copper	
Shield	Material	Mylar tape, Al Mylar tape	
	Description	100% coverage and mylar side facing out	

MATERIALS & CONSTRUCTION

Rip cord	Material	Polyester multi-yarn
Nominal Velocity of Propagation	(NVP) 69%	
NRTL Program	c(UL)us listed ETL Verified	
Marking	Per Hyperline Standard	

ORDERING

Part Number	Product Description
FUTP4-C6-SOLID-CM-WH	Category 6, FTP, 23 AWG, White 305 Meter/1000 FT Pull Box
FUTP4-C6-SOLID-CM-BL	Category 6, FTP, 23 AWG, Blue 305 Meter/1000 FT Pull Box
FUTP4-C6-SOLID-CM-GY	Category 6, FTP, 23 AWG, Grey 305 Meter/1000 FT Pull Box
FUTP4-C6-SOLID-CM-OR	Category 6, FTP, 23 AWG, Orange 305 Meter/1000 FT Pull Box
FUTP4-C6-SOLID-CM-GN	Category 6, FTP, 23 AWG, Green 305 Meter/1000 FT Pull Box
FUTP4-C6-SOLID-CM-VT	Category 6, FTP, 23 AWG, Violet 305 Meter/1000 FT Pull Box
FUTP4-C6-SOLID-CM-BK	Category 6, FTP, 23 AWG, Black 305 Meter/1000 FT Pull Box
FUTP4-C6-SOLID-CM-YL	Category 6, FTP, 23 AWG, Yellow 305 Meter/1000 FT Pull Box
FUTP4-C6-SOLID-CM-RD	Category 6, FTP, 23 AWG, Red 305 Meter/1000 FT Pull Box
FUTP4-C6-SOLID-CM-PK	Category 6, FTP, 23 AWG, Pink 305 Meter/1000 FT Pull Box



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